

Property Identifiers

Properly Name and Designation: Bauer-Brockway Barrens

County: Jackson

Property Acreage: 120 Acres

Forestry Property Code: 2721

Property manager: Armund Bartz

Master Plan Date: NA

Part 1: Property Assessment (1-2 pages maximum)

The following items should be considered during the property assessment. Not all sections may be relevant for all properties.

General Property Description:

Bauer-Brockway Barrens features scattered jack pine and Hill's oak within a matrix of sand prairie and shrubs located on the level sandy soils characteristic of the extinct Glacial Lake Wisconsin. American hazelnut and New Jersey Tea dominate the shrub layer while sand prairie species dominate the understory with little blue-stem, June grass, western sunflower, bastard-toadflax, cream wild indigo, flowering spurge, yellow flax, pale-spike lobelia, sand primrose, and bird's-foot violet. Composites are especially diverse with five asters, four species of goldenrod, and three species of blazing-star. The site has a diverse butterfly component including one of the most diverse moth fauna of any other barrens in the state. A number of rare and uncommon lepidopterans are supported here. Indian Grave Creek runs northwest southeast through the barrens adding to the overall site diversity. Bauer-Brockway Barrens is owned by the DNR and Jackson County and was designated a state natural area in 1997.

Landscape and regional context

Hydrology: The Bauer Brockway Barrens State Natural Area lies within the Central Sand Plains Ecological Landscape. This landscape has large areas of wetlands and a number of generally low-gradient streams that range from small coldwater streams to large warm water rivers. Major rivers include the Wisconsin, Black, Yellow, and Lemonweir. Natural lakes are rare, and are limited to riverine floodplains and a few scattered ponds within the bed of extinct Glacial Lake Wisconsin. The hydrology of this Ecological Landscape has been greatly disrupted by past drainage, channelization, impoundment construction, and groundwater withdrawal.



Current Land Cover: The Central Sand Plains Ecological Landscape is a mosaic of cropland, managed grasslands and scattered woodlots of pine, oak, and aspen. Many of the historic wetlands in the east were drained early in the 1900s and are now used for agricultural purposes. The western portion of this Ecological Landscape is mostly forest or wetland. Oak, pine, and aspen are the most abundant forest cover types.

History of land use and past management: The NW 40 acre parcel of the state owned portion was once a farmstead and was eventually planted to scotch pine for Christmas trees which were cut between 2002 and 2012 (after state acquisition). This same 40 acre tract had the northern 20 acre portion burned in about 2012 and then seeded with round headed bush clover and wild lupine. Additionally, work to control invasive has taken place periodically (buckthorn, knapweed, crown vetch). A wildfire (Brockway Fire) burned the entire property in April of 1977.

Site Specifics

Current forest types, size classes and successional stages

The Bauer-Brockway Barrens has 71 forested acres (2018 reconnaissance) that are comprised of:

Aspen: 33 acres (46%)-100% is 39 years of age with size classes 5-11". Jack Pine: 26 acres (37%)-100% is 39 years of age with size classes 5-9". Red Pine: 12 acres (17%)-100% is 39 years of age with size classes 5-9".

 State Natural Area designations: The property is the Bauer Brockway Barrens State Natural Area: http://dnr.wi.gov/topic/Lands/naturalareas/index.asp?SNA=325

Map: http://dnr.wi.gov/topic/lands/naturalareas/documents/topomaps/map325.pdf

Site objectives

Manage the site as a pine barrens reserve and as an ecological reference area. Natural processes and prescribed vegetation manipulation (see below) will determine the structure of the savanna. Provide opportunities for research and education on the highest quality native pine barrens.

Management approach

The native dominant tree species (primarily jack pine) are managed actively. However, some trees such as scattered northern pin oak and red pine are not harvested. After jack pine is established, thinning of the canopy and shrub control via harvest, brushing or fire may be needed to mimic natural disturbance patterns. Exceptions include control of invasive plants and animals, maintenance of existing facilities, and access to suppress



fires. Salvage of trees after a major wind event can occur if the volume of woody material inhibits fire prescriptions.

- High Value Conservation Forests (HVCF) or other resources/natural community types limited in the landscape: Pine/oak barrens are globally rare natural communities.
- Blotic Inventory status; partially completed in 2017
- Deferral/consultation area designations (refer to the following website): NA
- Rare species; a number of rare plants and animals occur on the property
- Invasive species: Glossy buckthorn threatens the entire site, with both knapweed and crown vetch also in limited areas.

Soils

Soil composition consists largely of Tarr, Rockdam, and Fairchild sands. There are also some areas with Iron Run-Pony Creek complex and Pony Creek-Dawsil complex, Most of the sands are moderately to excessively drained with rapid permeability. There are some areas that are poorly drained. Relief is predominately 0-3%.

Cultural and Recreational Considerations

Cultural and archeological sites (including tribal sites): None known

Part 2: IFMP Components (1-2 pages maximum)

Management Objectives:

The primary forest management objective is to restore the site to pine/oak barrens and sand prairie for the benefit of the rare species contained within.

Property Prescriptions (Identify specific and perlinent prescriptions by area or forest type, including passive management areas, extended rotation, and other information that will help achieve the objectives):

<u>Aspen</u>- A coppice harvest will maintain the aspen stand. Promote early successional forest to complement the open barrens habitat. A buffer of leave



trees around the north edge of the stand should be left to prevent the aspen from invading the jack pine barrens through suckers.

<u>Jack Pine</u>- A thinning/patch clearcut harvest should be utilized to return the jack pine stand to proper stocking levels for a jack pine barrens. Consider leaving healthy vigorous jack pine reserve trees. Carefully planned prescribed burning and hand cutting will be necessary to maintain the barrens and to control the establishment of jack pine in higher density.

<u>Red Pine</u>- Red pine will be clearcut. Reserve trees especially along/within the riparian corridor will be left un-cut for both structural/species diversity and aesthetics.

Armund D. Regional Ecologist	Back 5/2/18	,
Forester Forester	5/3/18 Date	
Armund O Property Manager	Buch 5/2/18	
Area/Team Supervisor	5/7/18 Date	
Area/Team Supervisor	7/7/18 Date	
Property Manager	Date	-

Approvals: